DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-026472

Address: 333 Burma Road **Date Inspected:** 30-Sep-2011

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1530 Prime Contractor: American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Jobsite

CWI Name: CWI Present: Yes No As noted below **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component: SAS OBG**

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

- 1. 12E PP109 Temporary Winch (Exterior)
- 2. 9W PP80 W4 Lifting Lug Hole (Exterior)
- 3. 9W PP80 W4 lifting Lug Holes (Exterior)
- 4. 5E/6E PP37 Closed Ribs (Interior)

12E PP109 Temporary Winch (Exterior)

The QA inspector observed ABF welder Mike Jimenez ID#4671 performing Flux Core Arc Welding (FCAW) in the 2F horizontal position on 13mm plate to deck for the temporary winch at 12E PP109. The QA inspector verified the layout in accordance with RFI 2569 Revision 0 and found it to be satisfactory. The QA inspector observed the QC inspector identified as Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D1.5-1-2200-2. The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general conformance with the contract documents.

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2. 9W PP80 W4 Lifting Lug Hole (Exterior)

The QA Inspector noted the dimensions of the excavation on Lifting Lug Hole #4 as y+613 90mm's length, and 8mm's deep, y+325 90mm's in length and 11mm's deep. The QA Inspector observed the QC Inspector identified as Pat Swain perform Magnetic Particle inspection on the excavations and found them to be free of indications. The QA inspector verified that the proper procedure was utilized as well as correct technique. The QA inspector observed ABF welder Mike Jimenez ID#4671 perform Shielded Metal Arc Welding (SMAW) in the 1G flat position with the QC Inspector being present in order to monitor the welding and ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1001-R. The QA Inspector noted that the work was completed on this date and appeared to be in general conformance with the contract documents.

3. 9W PP80 W4 lifting Lug Holes (Exterior)

The QA Inspector performed a Magnetic Particle Test (MT) on Lifting Lug holes #1 and 2 at 9W PP80 W4. The QA Inspector utilized the MT procedure SE-MT-D1.5-CT-100 Rev. 4 to test 10% of the weld to verify the weld and testing by QC meet the requirements of the contract documents. The QA Inspector noted that the work appeared to be free of defects and was found to be acceptable and in general conformance with the contract documents. Upon completion of the MT, the QA Inspector performed Ultrasonic Testing utilizing a G.E. /Krautkramer USN 60. The QA Inspector also utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination. Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

4. 5E/6E PP37 Closed Ribs (Interior)

This QAI performed a Magnetic Particle Testing (MPT) of the Partial Joint Penetration (PJP) groove weld located at the closed U-rib to "A" deck shop connection between the Y coordinates 8535 mm to 10330 mm along the "A" deck field splice connection identified as 5E-6E-A at Panel Point (PP) 37. The testing was performed due to the contractor utilizing mechanical means (hydraulic jacks), with temporary attachments welded on the "A" deck in attempt to bring the field splice into an acceptable planar alignment. The Visual Testing (VT) and MPT were performed utilizing the following inspection procedures accordingly and are identified as, SE-VT-CT-D1. 5-103 and SE-MT-D1.5-CT-100, Rev. 4. At the conclusion of the inspection and testing no rejectable discontinuities were noted by this QAI and appeared to comply with the contract specifications. For additional information see the MPT report identified as TL-6028 generated on this date. See map on page 3 of this report.

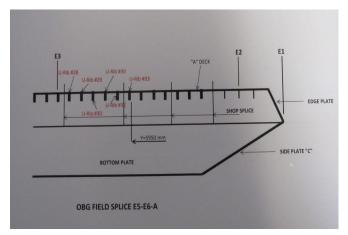
Summary of Conversations:

At the beginning the shift the QA inspector met with QC inspector William Sherwood and discussed the welders assignments and locations for the shift to include pending issues, ongoing work and required testing. This report supersedes WIR-026442 due to the QA inspector inadvertently omitting the correct location of the 5E/6E "U" Ribs.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Frey,Doug **Quality Assurance Inspector Reviewed By:** Levell,Bill **QA** Reviewer